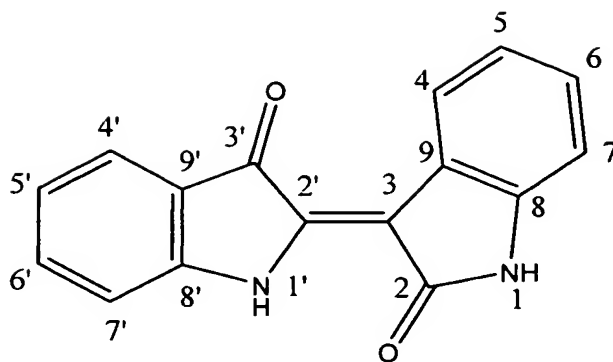


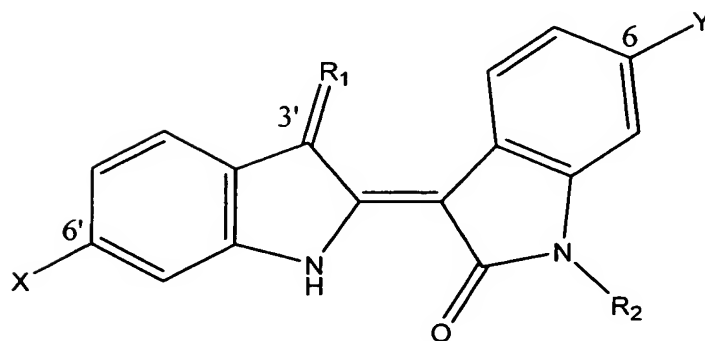
FIGURE 1

A



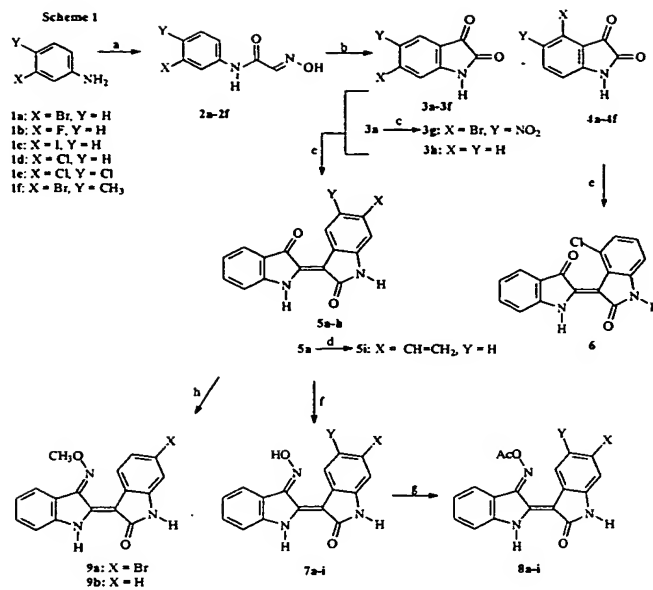
Indirubin (**5h**)

B



Exemplary Compound	No.	X	Y	R ₁	R ₂
Indirubin	5h	H	H	O	H
6-Bromoindirubin	5a	H	Br	O	H
6'-Bromoindirubin	12h	Br	H	O	H
6,6'-Dibromoindirubin	12b	Br	Br	O	H
1-Methylindirubin-3'-oxime ("MeIO")	13d	H	H	NOH	CH ₃
1-Methyl-6-bromoindirubin	12c	H	Br	O	CH ₃
1-Methyl-6-bromoindirubin-3'-oxime ("MeBIO")	13c	H	Br	NOH	CH ₃
Indirubin-3'-oxime ("IO")	7h	H	H	NOH	H
6-Bromoindirubin-3'-oxime ("BIO")	7a	H	Br	NOH	H
6'-Bromoindirubin-3'-oxime	13a	Br	H	NOH	H
6,6'-Dibromoindirubin-3'-oxime	13b	Br	Br	NOH	H
6-Bromoindirubin-3'-methoxime	9a	H	Br	NOCH ₃	H
6-Bromoindirubin-3'-acetoxime	8a	H	Br	NOCOCH ₃	H
1-Methylindirubin	12d	H	H	O	CH ₃

FIGURE 2A



Reagents: (a) chloral hydrate, H₂NOH.HCl, H⁺; (b) H₂SO₄; (c) NaNO₂, H₂SO₄, 0 °C;
 (d) [CH₃(CH₂)₂]₃SnCH=CH₂/[(C₆H₅)P]₄Pd, dioxane, 100 °C
 (e) 3-acetoxylindole, Na₂CO₃/MeOH 25 °C; (f) H₂NOH.HCl, Py, 120 °C
 (g) Ac₂O, Py, 0 °C; (h) H₂NOCH₃.HCl, Py, 120 °C

FIGURE 2B

Scheme 2

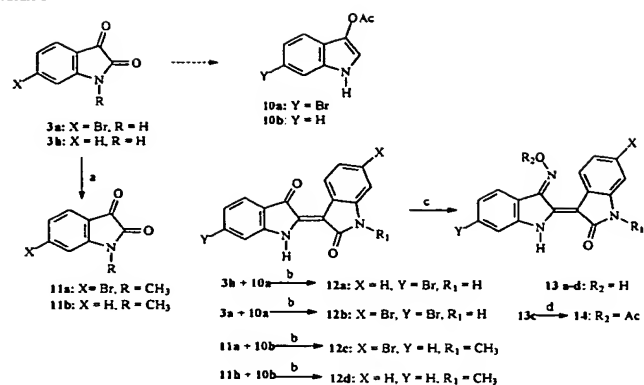


FIGURE 3A

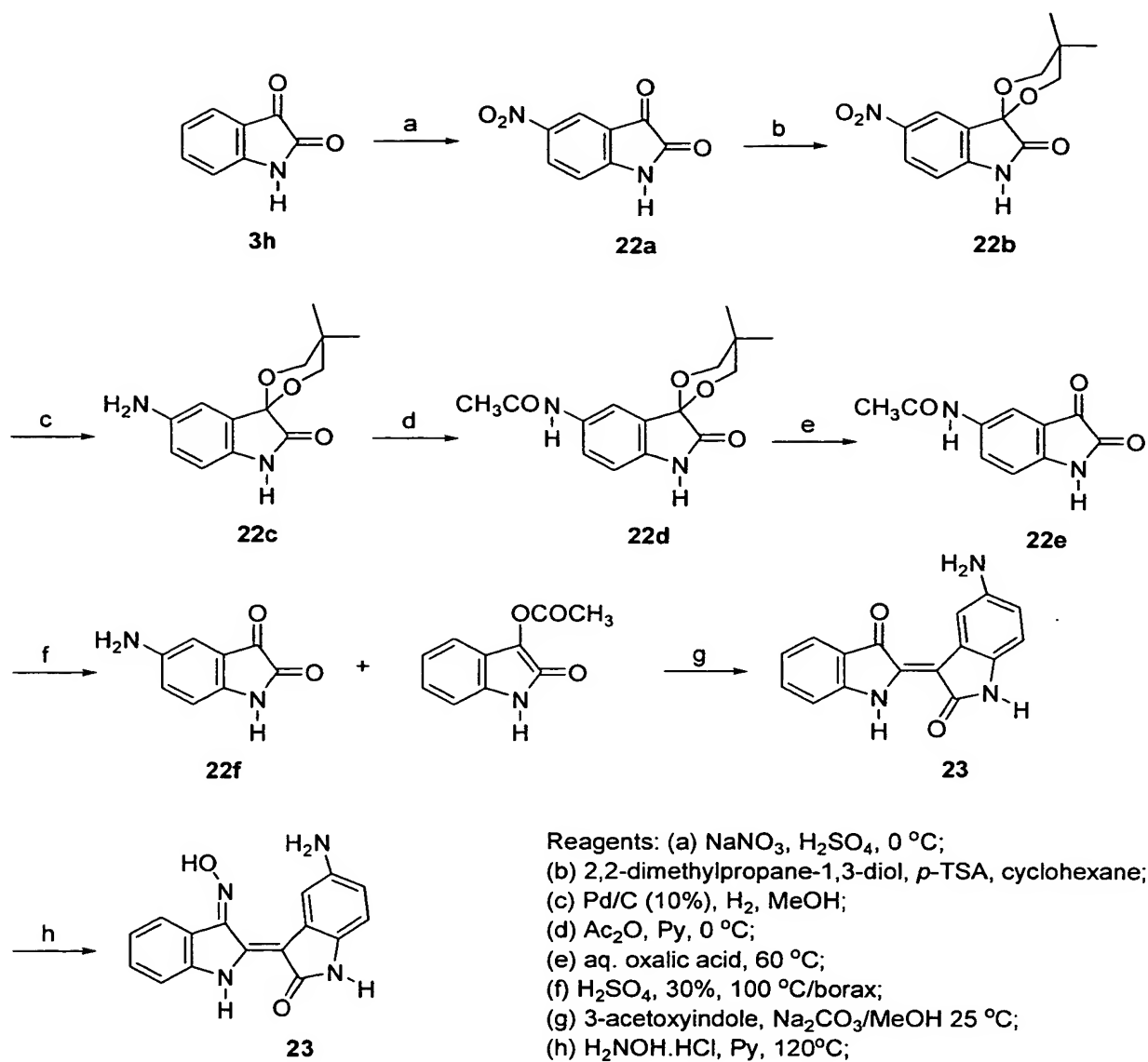


FIGURE 3B

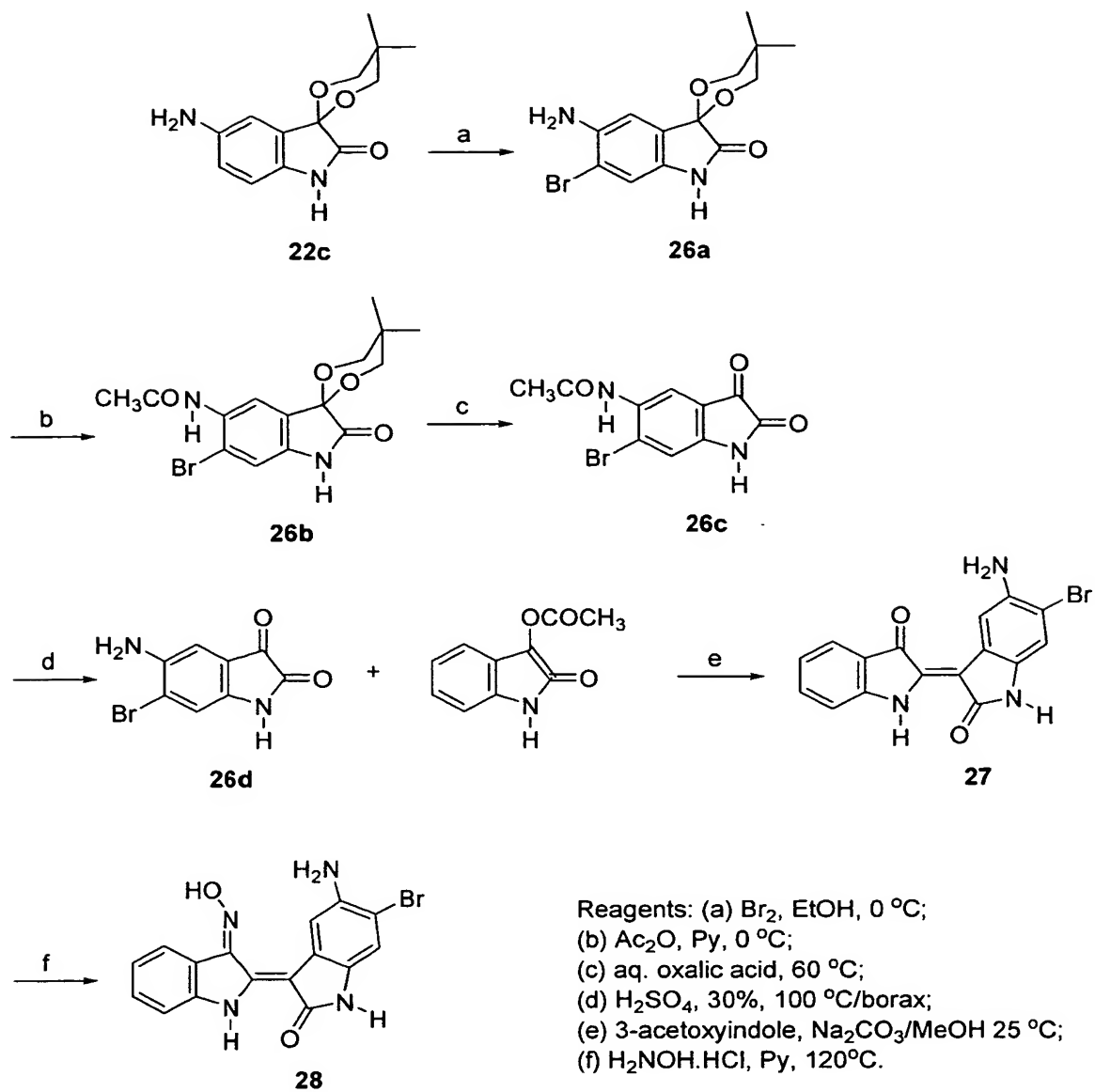


FIGURE 4

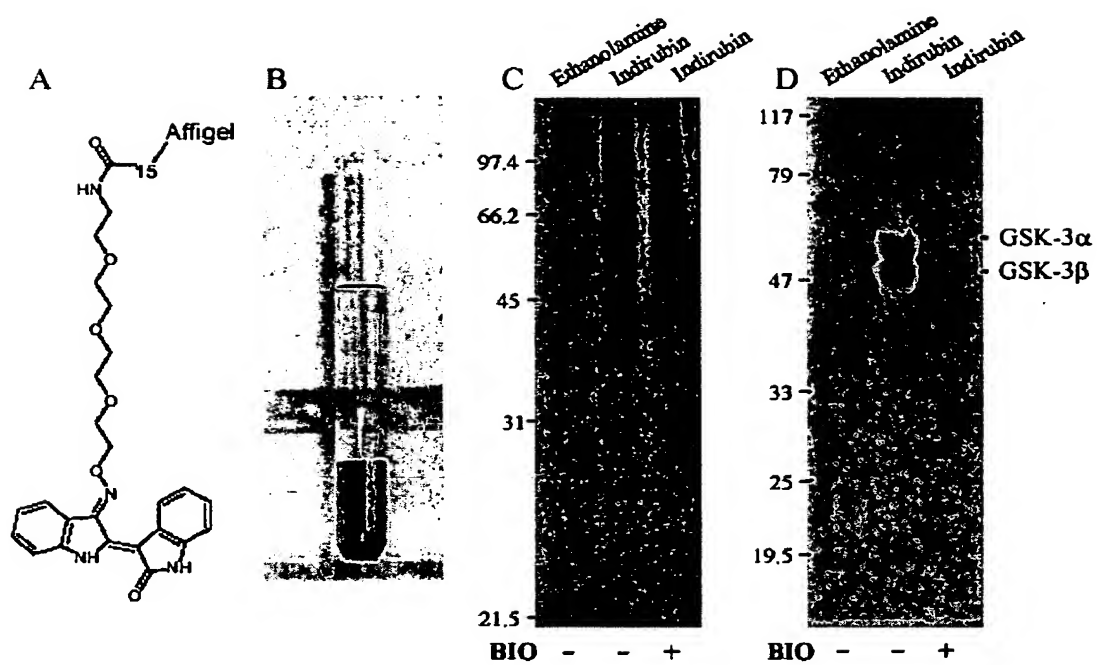


FIGURE 5

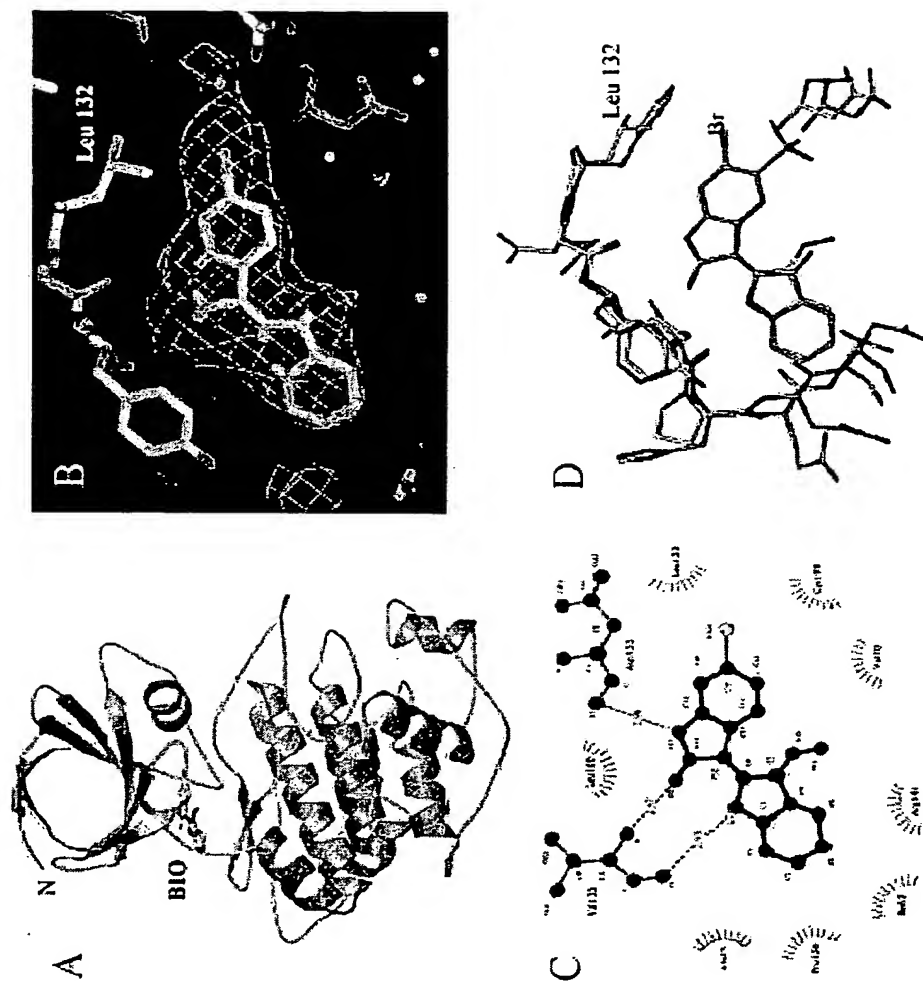
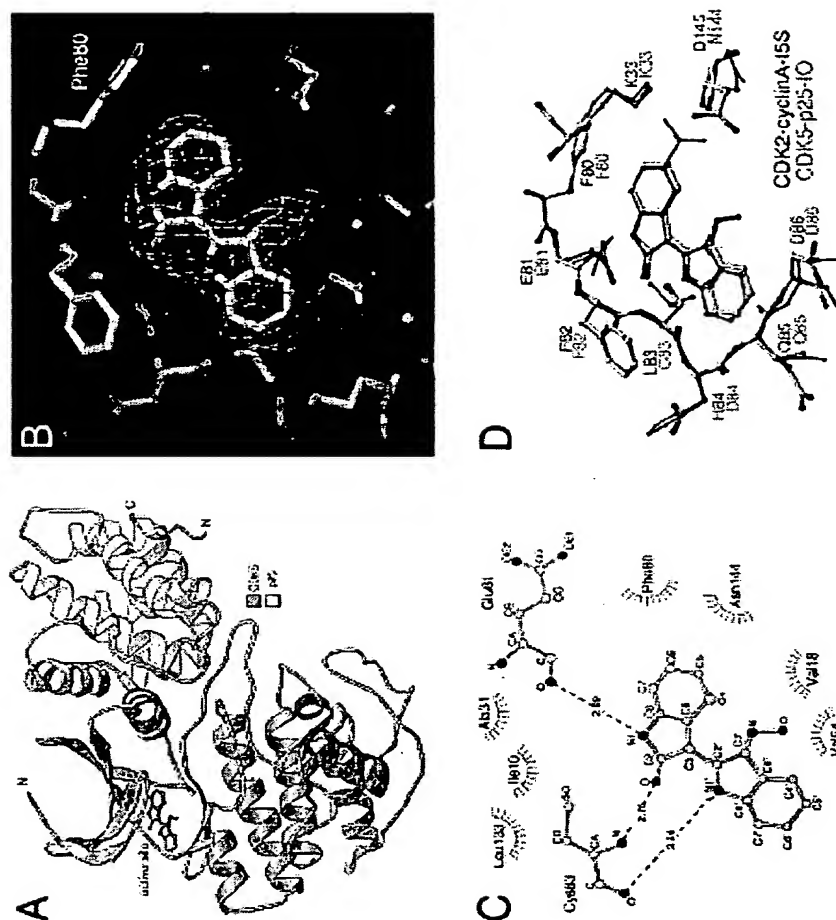


FIGURE 6



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FIGURE 8

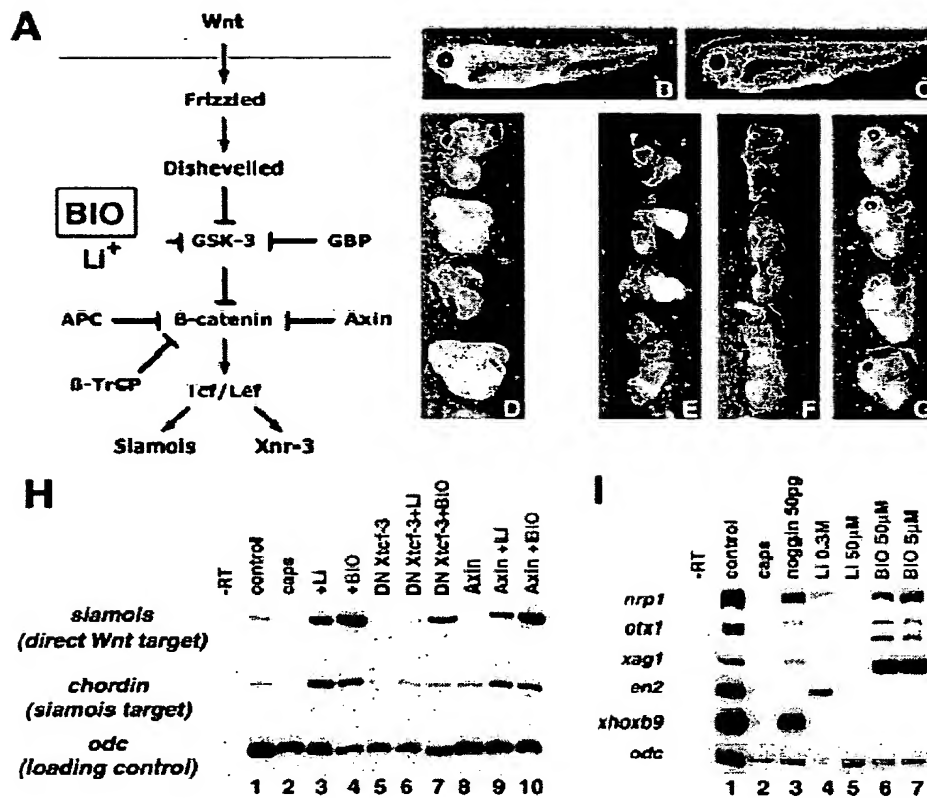
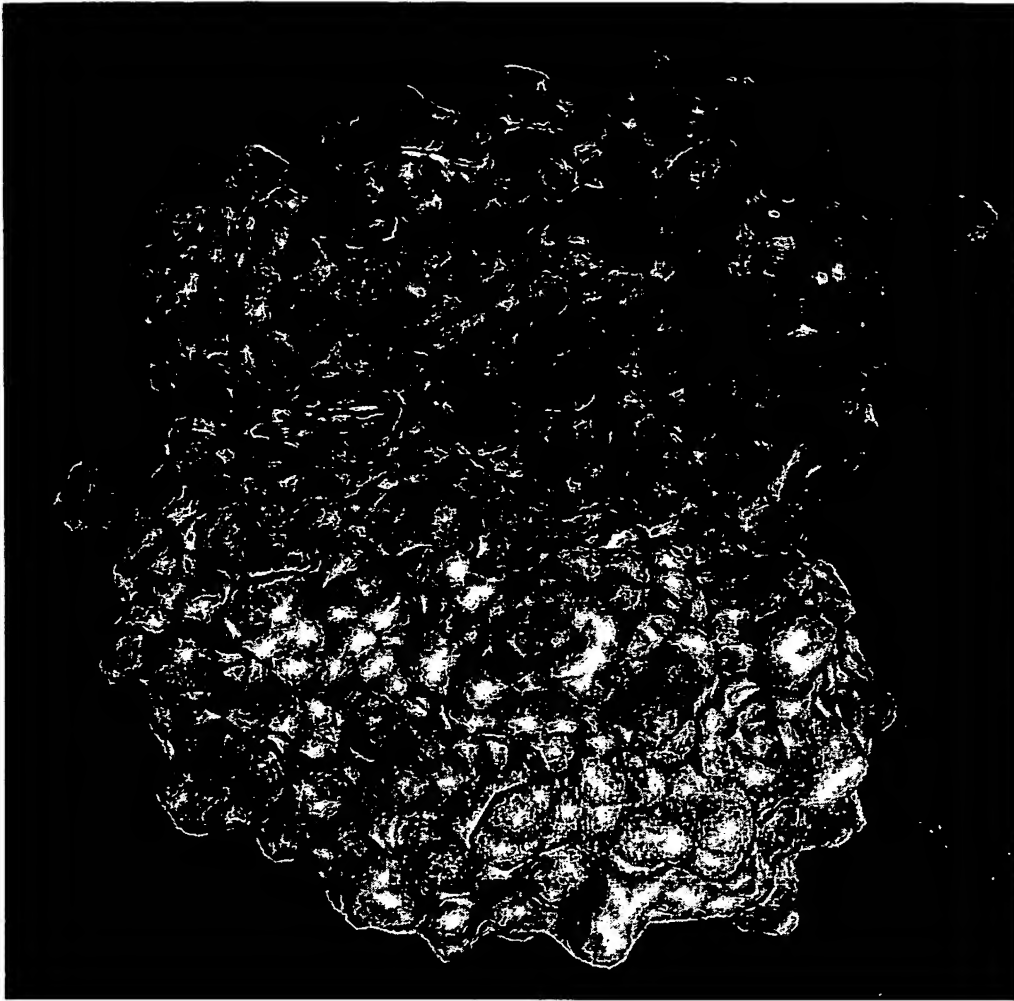
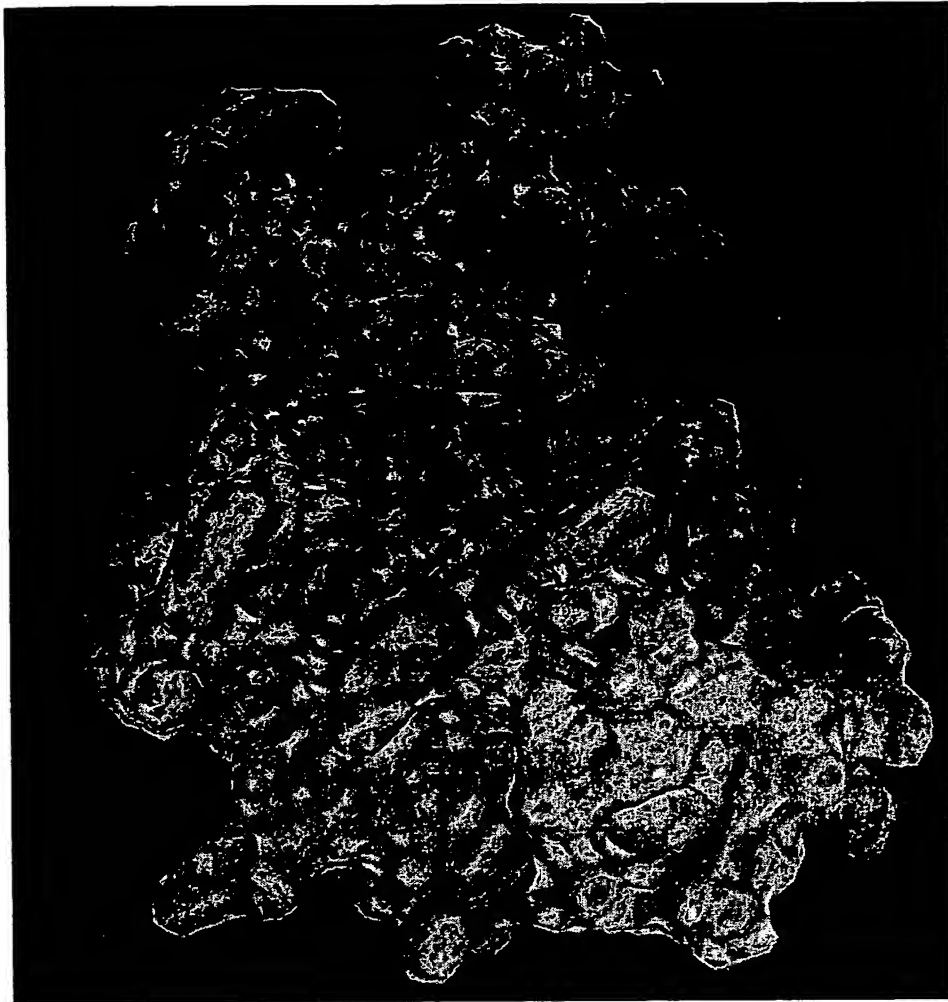


FIGURE 9A



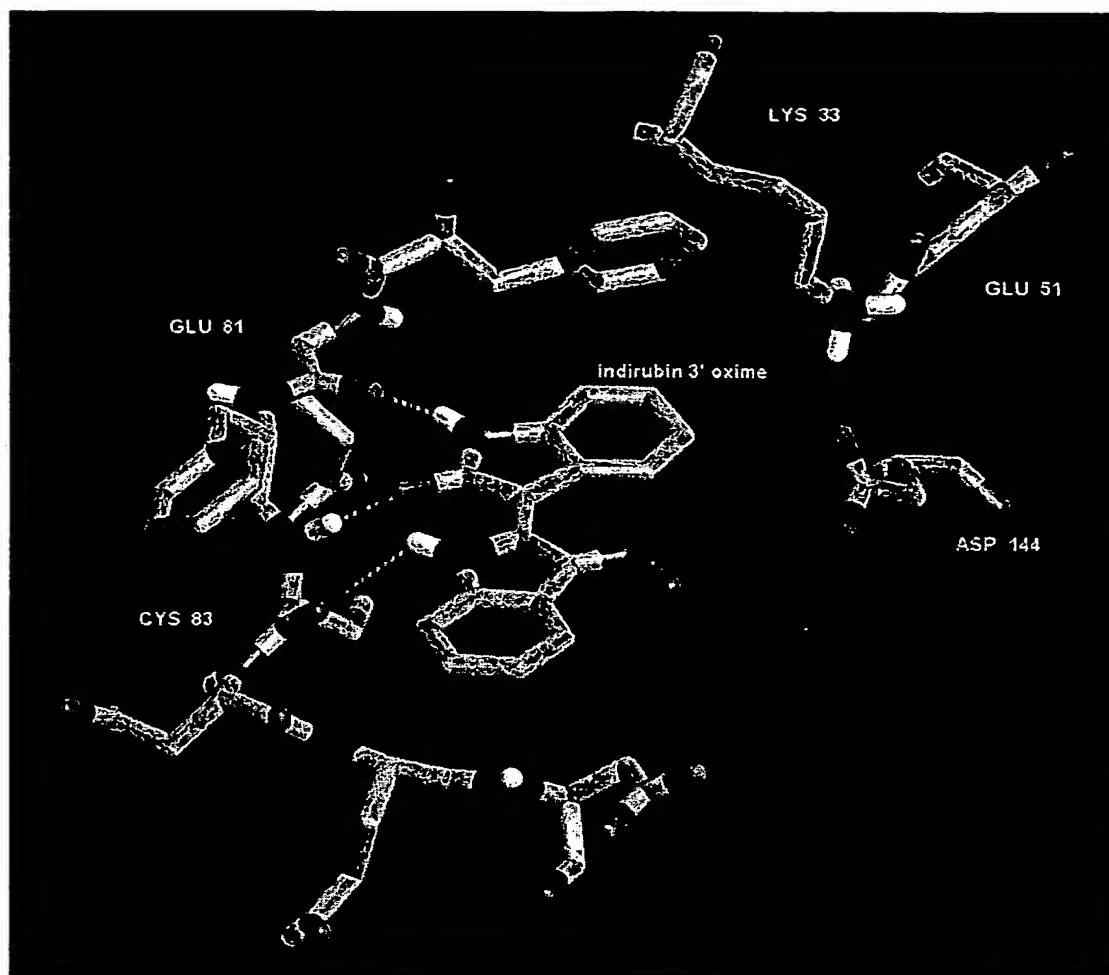
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FIGURE 9B



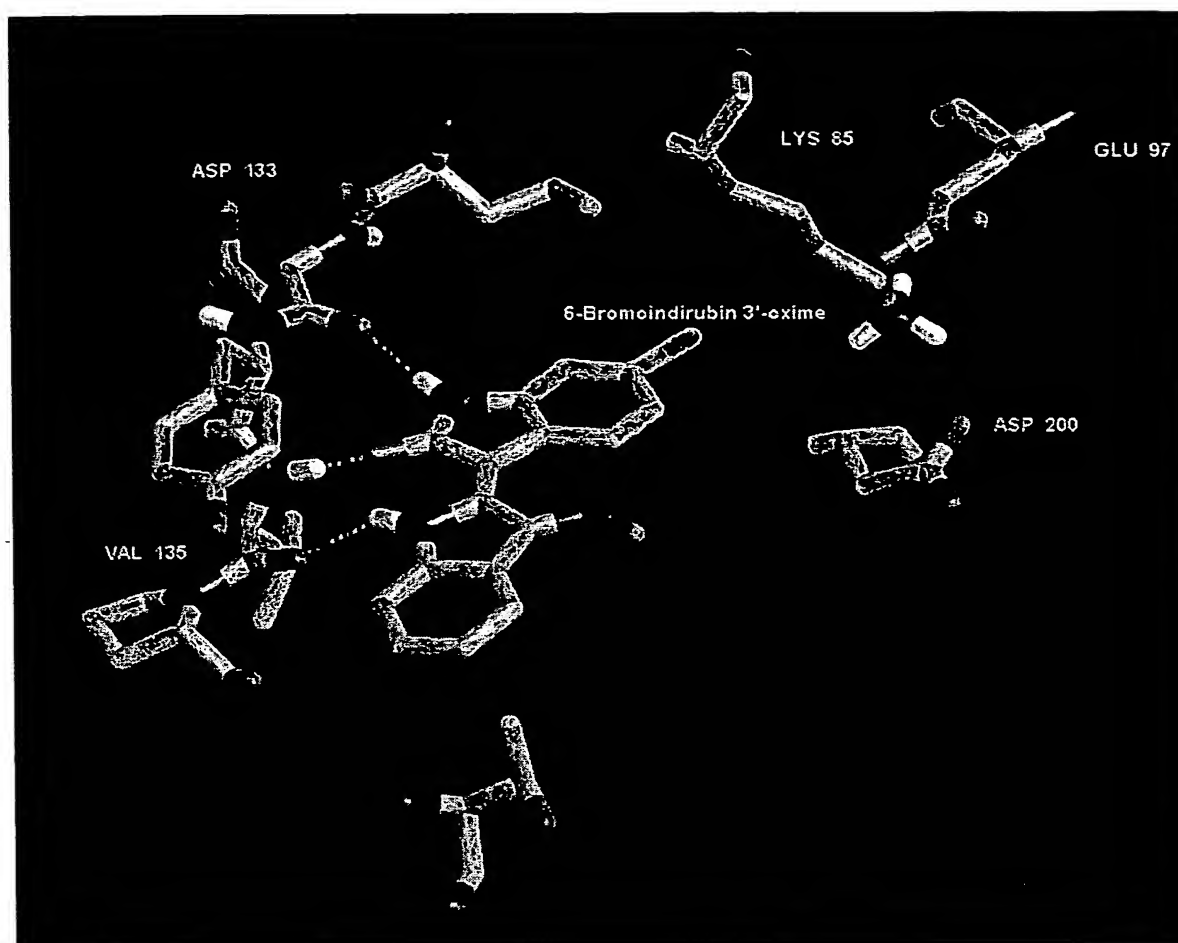
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FIGURE 9C



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FIGURE 9D



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FIGURE 10

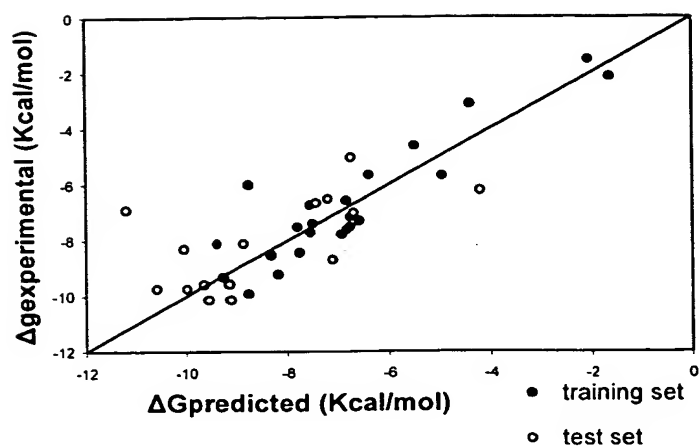
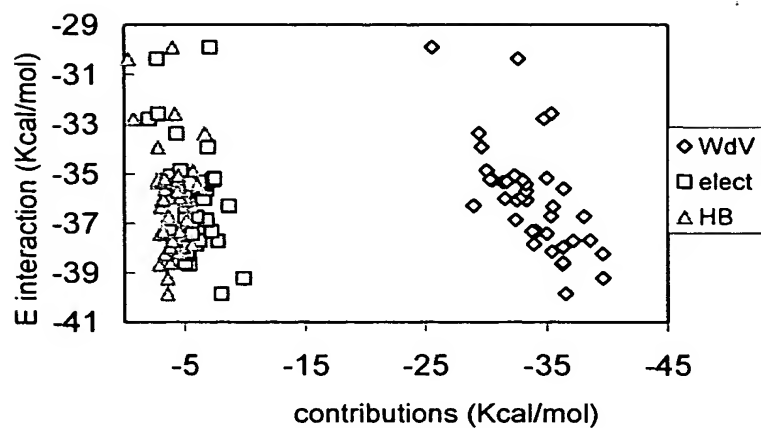


FIGURE 11

A



B

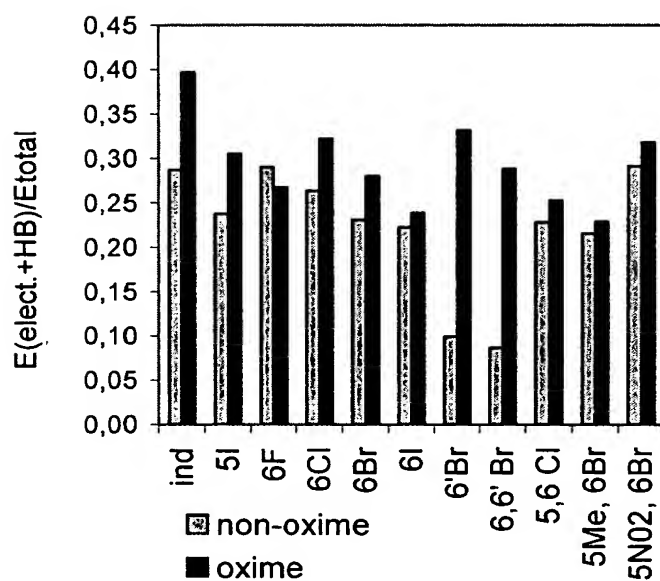


FIGURE 12

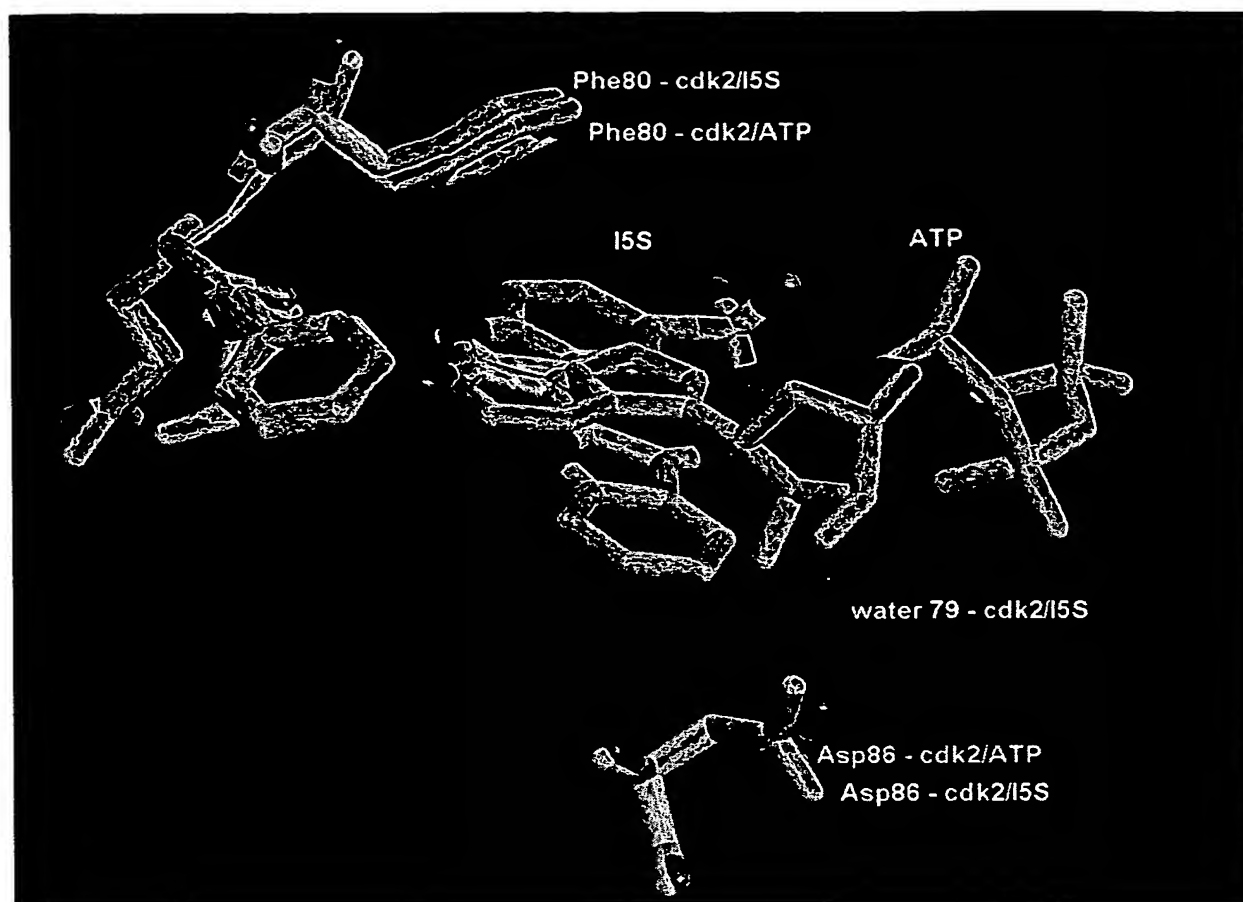


FIGURE 14

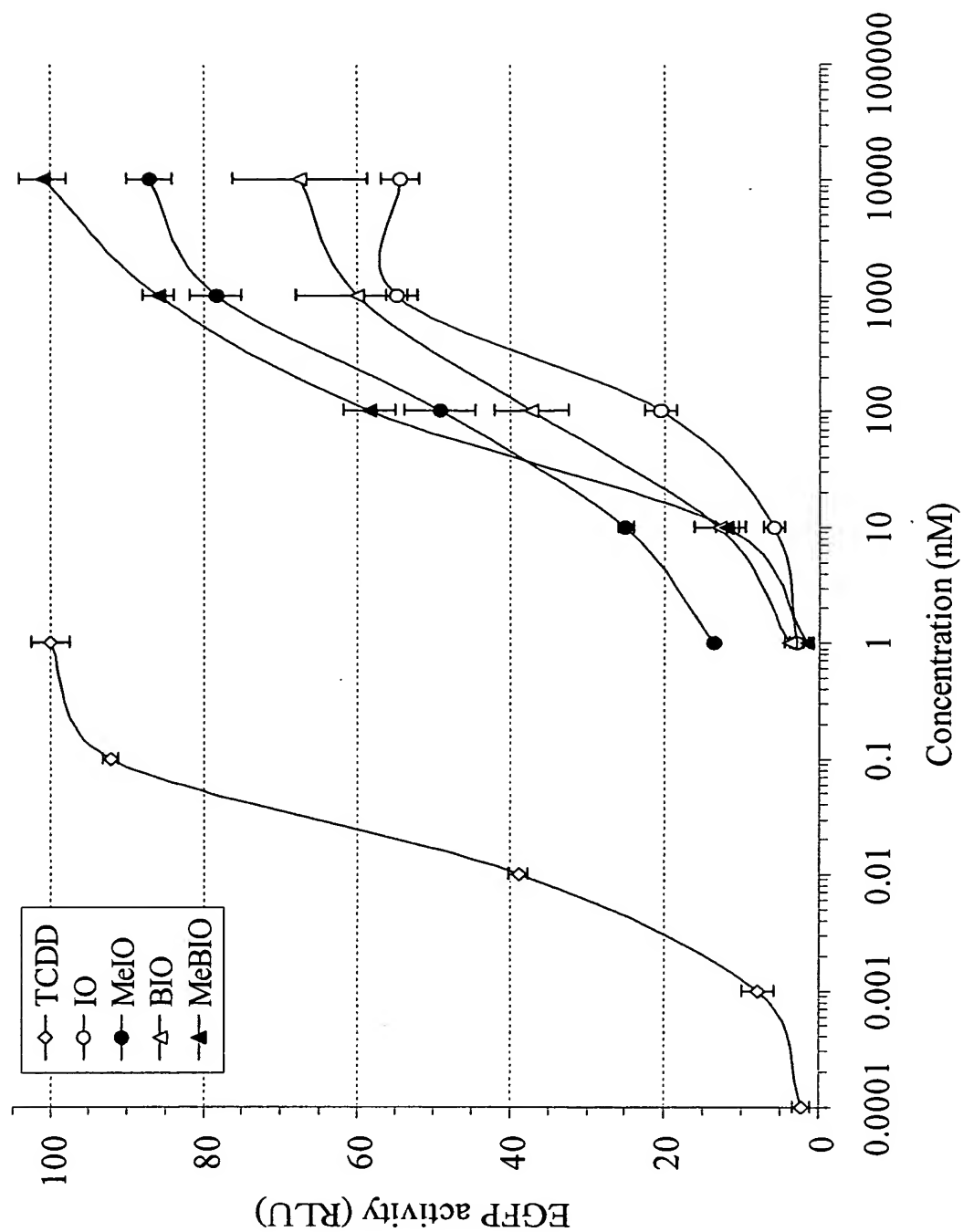
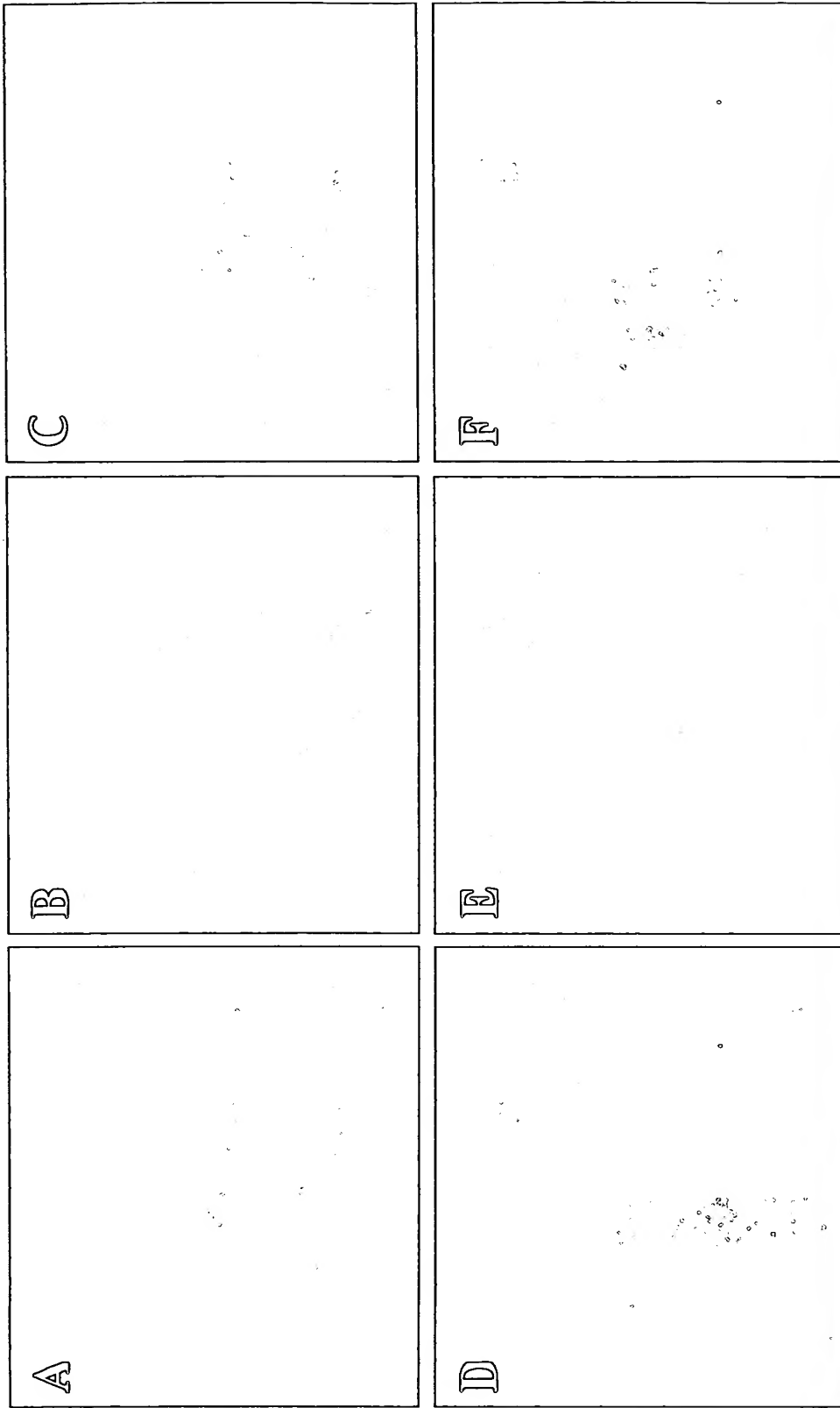


FIGURE 15A-15F

AhR

DNA

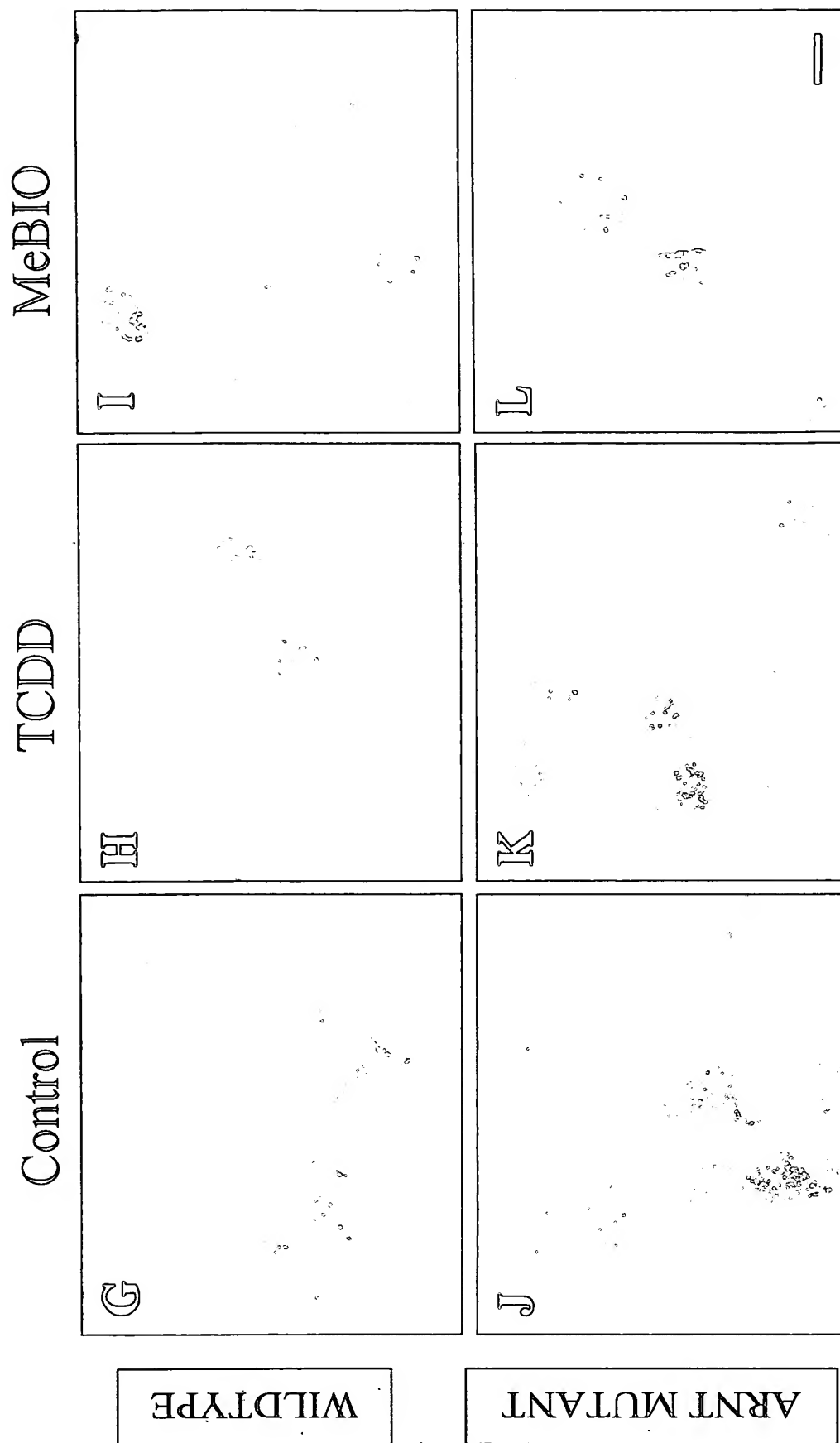
merg



CONTROL

IO

FIGURE 15G-15L



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FIGURE 16

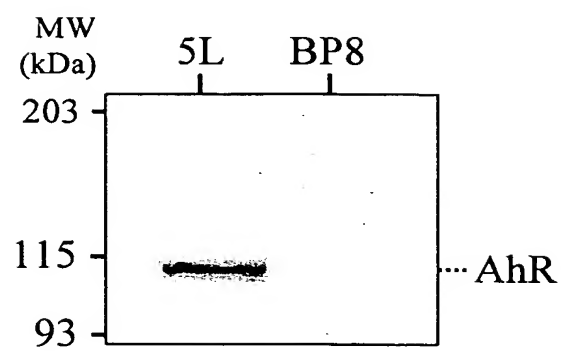


FIGURE 17

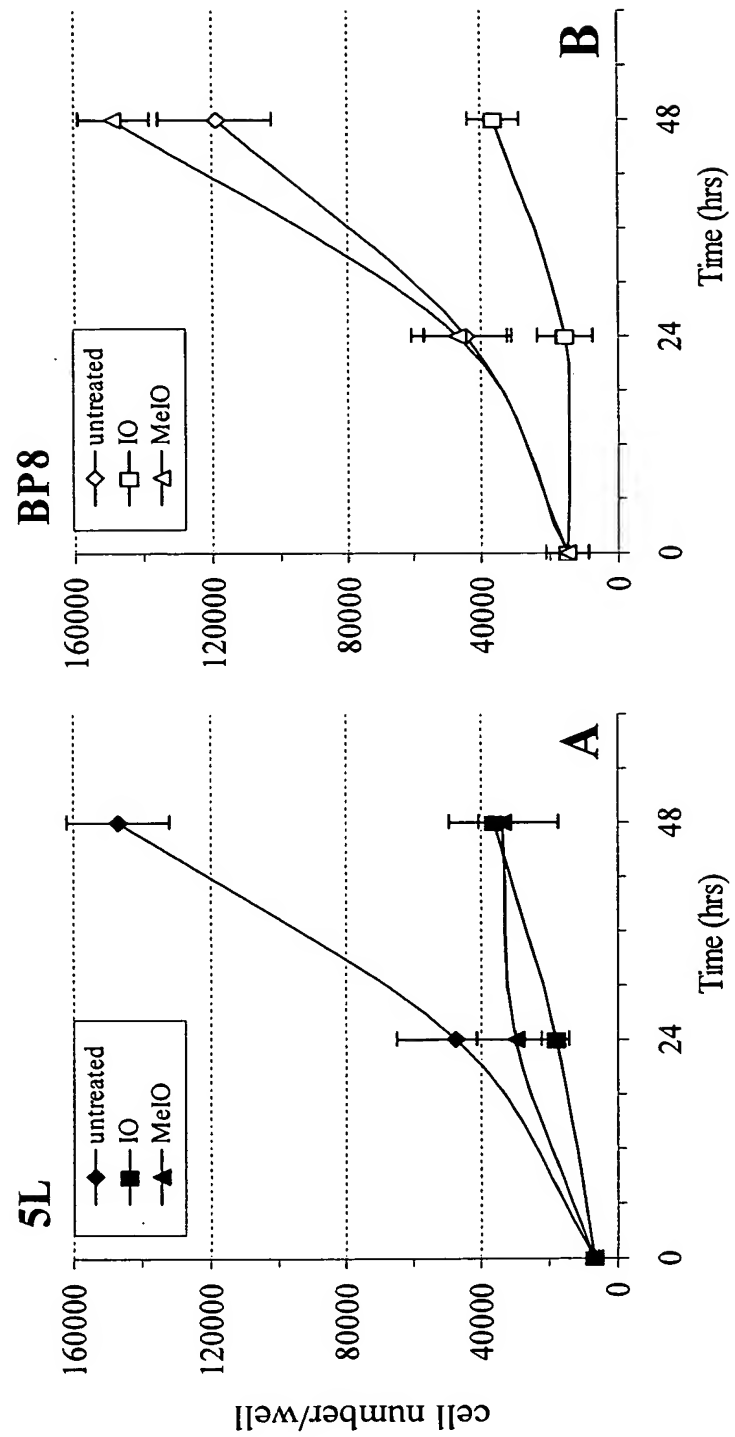


FIGURE 18

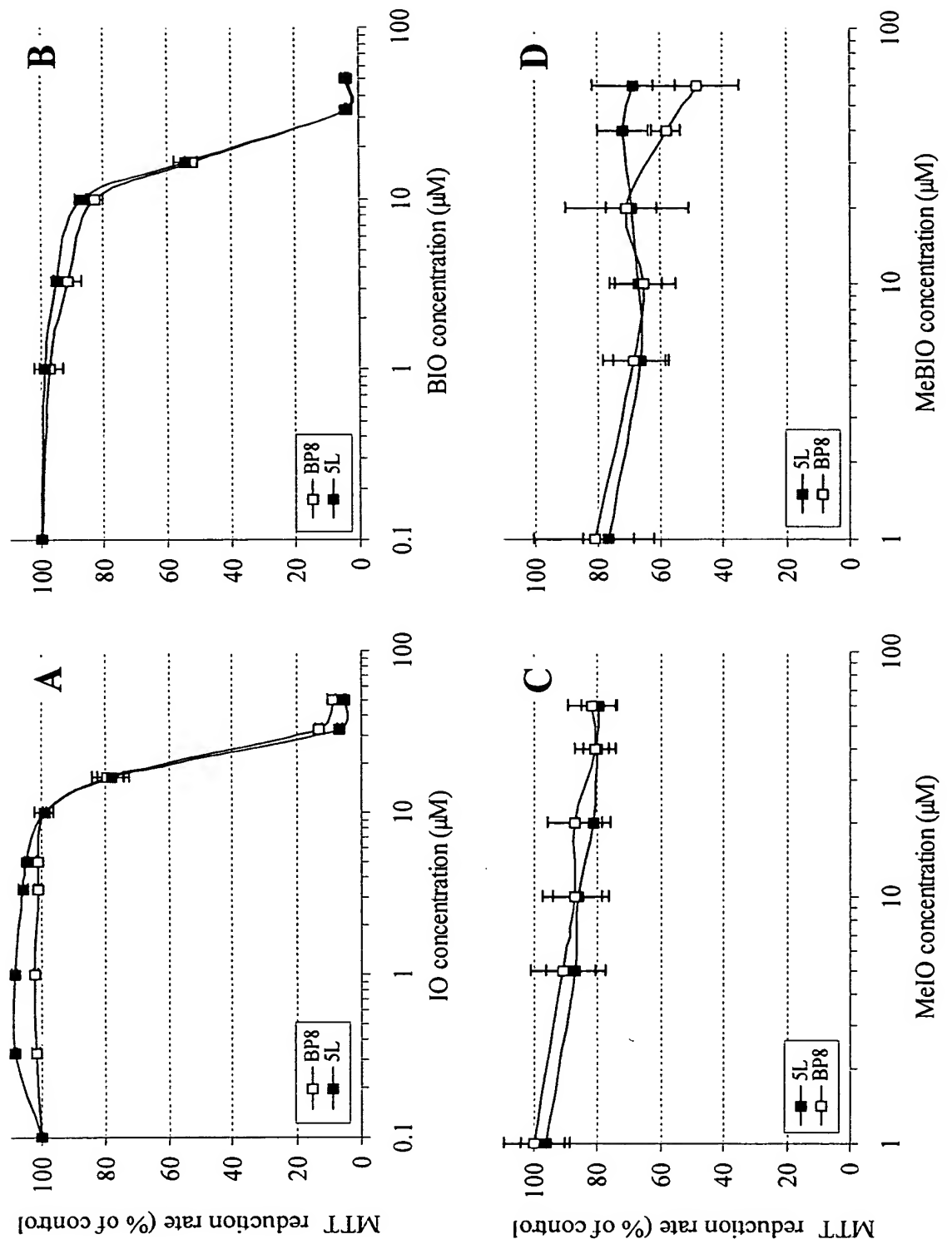
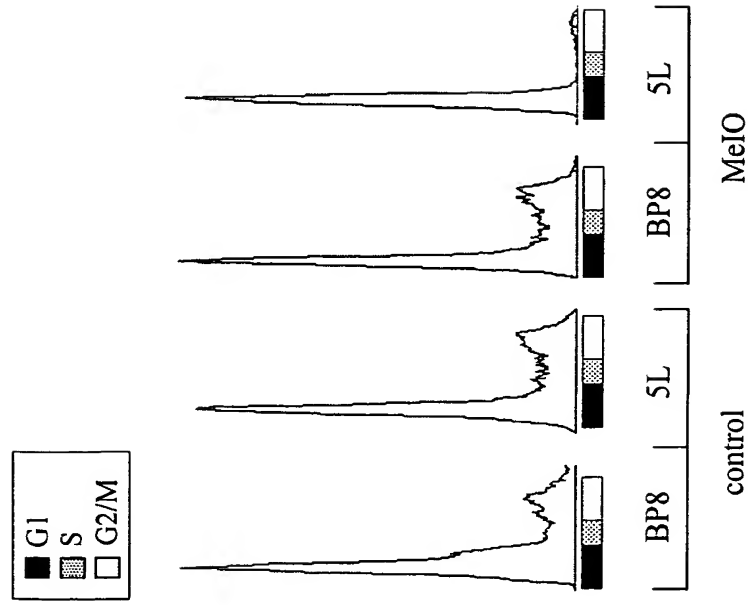


FIGURE 19

A



B

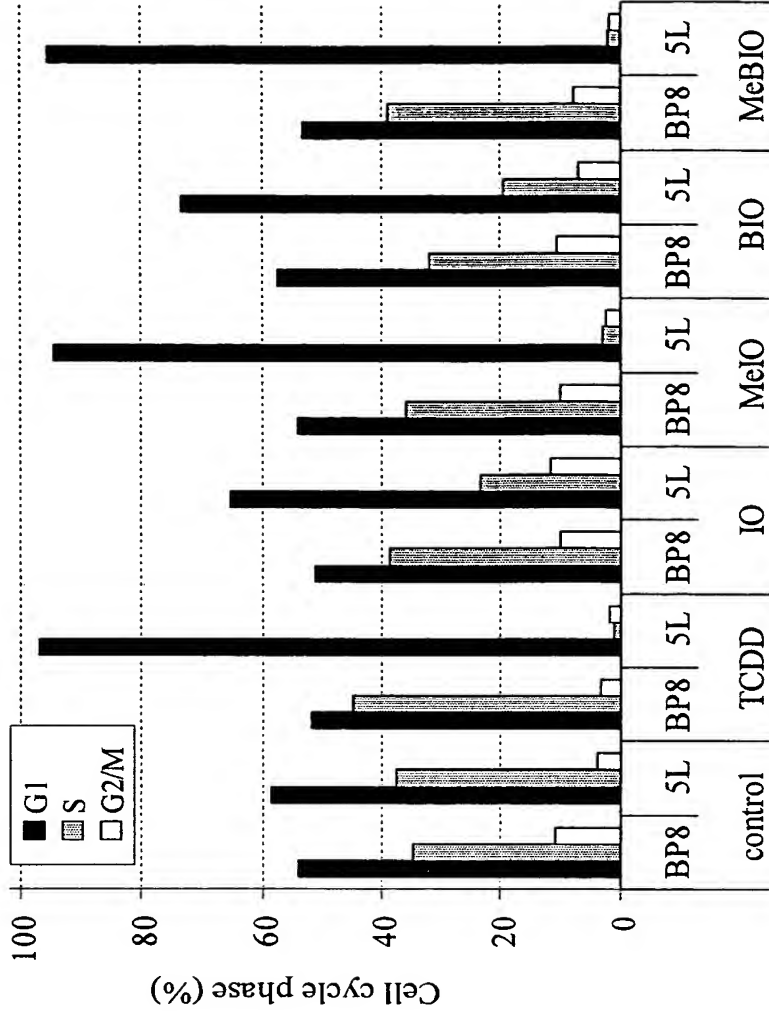


FIGURE 20

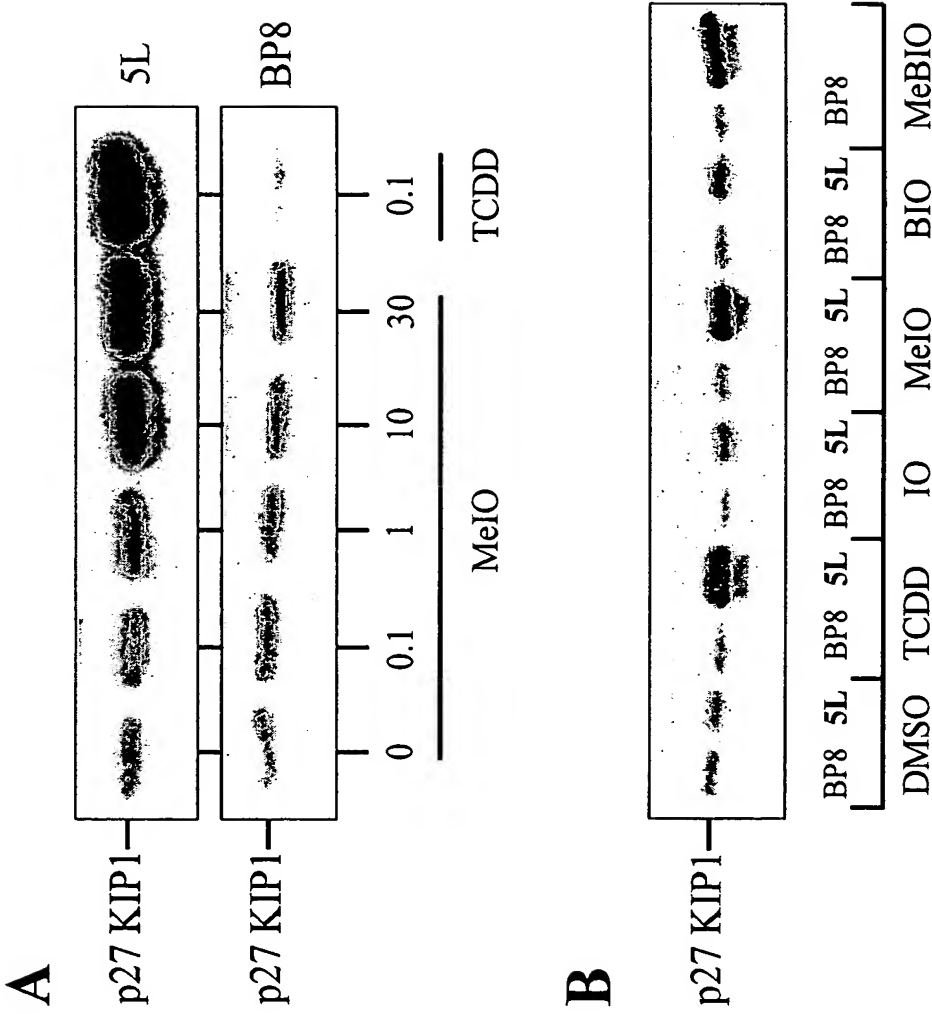


FIGURE 21

